

SUPPORT FOR THE AMENDMENT

This Amendment amends Claim 20. Support for the amendments is found in the specification and claims as originally filed. In particular, support for Claim 20 is found in Claim 20. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 20-27 and 29-39 will be pending in this application. Claims 20 and 34 are independent. Claims 26-27, 30 and 34-38 are withdrawn from consideration pursuant to a Restriction/Election of Species Requirement.

REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

The present invention relates to a phase-change memory cell capable of undergoing a large number of write cycles. The phase-change memory cell includes between two electrical contacts a portion in a memory material with an amorphous-crystalline phase change and vice versa, as a stack, with an active central area located between two passive outmost areas. The material of the passive outmost areas has at least one chemical element in common with the material of the active central area, and the passive outmost areas are made in the same material. Specification at page 1, lines 5-7; page 6, lines 25-30; page 15, lines 10-11, 14-22.

Claims 20-24, 29, 31-33 and 39 are rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 4,177,475 ("Holmberg") in view of U.S. Patent No. 4,314,256 ("Petrov"). Claim 25 is rejected under 35 U.S.C. § 103(a) over Holmberg and Petrov and further in view of U.S. Patent Application Publication No. US 2004/0051161 A1 ("Tanaka").

Holmberg discloses an amorphous memory device for an electrically alterable read-only memory. Holmberg at abstract. Holmberg discloses a layer 30 of a germanium-tellurium composition containing 0 to 10% germanium formed on a layer 29 of a germanium-tellurium composition containing 10 to 25% germanium deposited on a layer 28 of a germanium-tellurium composition containing 25 to 45% germanium. Holmberg at column 5, lines 21-31.

However, Holmberg's layer 30 containing 0 to 10% germanium and Holmberg's layer 28 containing 25 to 45% germanium do not have the same composition. Thus, Holmberg fails to suggest the independent Claim 20 limitation of "the passive outmost areas being made in **the same material**".

Petrov and Tanaka fail to remedy the deficiencies of Holmberg.

Petrov discloses a metallic layer 1 on a separator layer 2 on an inorganic material layer 3, where the metallic layer 1 may be made from nickel, silver, copper, thallium or their alloys, and the inorganic material layer 3 may be made of compounds or alloys such as As-S, As-Se, As-S-Se, Sb-S, Sb-Se, Sb-S-Se, Bi-S, Bi-Se, Bi-S-Se and the like materials. Petrov at column 4, lines 26-41. However, Petrov fails to suggest that Holmberg's layer 30 and layer 28 could or should be made in the same material.

The Final Rejection at page 6, lines 6-9, cites Tanaka against Claim 25 for suggesting that the material of the active central area includes between about 16% and 30% of tellurium and between about 84% and 70% of antimony.

Because the cited prior art fails to suggest the independent Claim 20 limitation of "the passive outmost areas being made in **the same material**", the prior art rejections should be withdrawn.

Claim 20 is objected to. To obviate the objection, Claim 20 is amended so that the first recitation of "outmost areas" is preceded by --passive--.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Marvin J. Spivak
Attorney of Record
Registration No. 24,913

Corwin P. Umbach, Ph.D.
Registration No. 40,211

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)